(3) Be listed by an independent laboratory.

(b) Renewable link cartridge-type fuses must not be used.

(c) Each fuse installation must provide for ready access to test the condition of the fuse.

[CGD 94–108, 61 FR 28279, June 4, 1996, as amended by61 FR 33045, June 26, 1996; USCG–2003–16630, 73 FR 65197, Oct. 31, 2008; USCG–2013–0671, 78 FR 60153, Sept. 30, 2013]

Subpart 111.54—Circuit Breakers

§ 111.54–1 Circuit breakers.

(a) Each Circuit breaker must—

(1) Meet the general provision of Article 240 of NFPA NEC 2002 or IEC 60092–202 (both incorporated by reference; see 46 CFR 110.10–1) as appropriate;

(2) Meet subpart 111.55 of this part; and

(3) Have an interrupting rating sufficient to interrupt the maximum asymmetrical short-circuit current available at the point of application.

(b) No molded-case circuitbreaker may be used in any circuit having a nominal voltage of more than 600 volts (1,000 volts for a circuit containing a circuitbreaker manufactured to the standards of the IEC). Each molded-case circuitbreaker must meet section 9 and marine supplement SA of UL 489 (incorporated by reference, see 46 CFR 110.10–1) or part 2 of IEC 60947–2 (incorporated by reference; see §110.10–1), except as noted in paragraph (e) of this section.

(c) Each circuitbreaker, other than a molded-case one, that is for use in any of the following systems must meet the following requirements:

(1) An alternating-current system having a nominal voltage of 600 volts or less (1,000 volts for such a system with circuitbreakers manufactured to the standards of the IEC) must meet:

(i) IEEE C37.13 (incorporated by reference; see 46 CFR 110.10–1);

(ii) ANSI/IEEE C37.27 (incorporated by reference; see 46 CFR 110.10–1); or

(iii) IEC 60947–2.

(2) A direct-current system of 3,000 volts or less must meet IEEE C37.14 (incorporated by reference; see 46 CFR 110.10–1) or IEC 60947–2.

(3) An alternating-current system having a nominal voltage greater than 600 volts (or greater than 1,000 volts for IEC standard circuitbreakers) must meet:

(i) IEEE C37.04, IEEE C37.010, and ANSI/IEEE C37.12 (all three standards incorporated by reference; see 46 CFR 110.10–1); or

(ii) IEC 62271–100 (incorporated by reference; see 46 CFR 110.10–1).

(d) A circuit breaker must not:

(1) Be dependent upon mechanical cooling to operate within its rating; or

(2) Have a long-time-delay trip element set above the continuous current rating of the trip element or of the circuit breaker frame.

(e) Each circuit breaker located in an engineroom, boilerroom, or machinery space must be calibrated for a 50 degree C ambient temperature. If the circuit breaker is located in an environmentally controlled machinery control room where provisions are made for ensuring an ambient temperature of 40 degree C or less, a circuit breaker must have at least the standard 40 degrees C ambient temperature calibration.

[CGD 74–125A, 47 FR 15236, Apr. 8, 1982, as amended by CGD 94–108, 61 FR 28279, June 4, 1996; 61 FR 33045, June 26, 1996; 62 FR 23908, May 1, 1997; USCG–2003–16630, 73 FR 65197, Oct. 31, 2008; USCG–2013–0671, 78 FR 60153, Sept. 30, 2013]

§ 111.54–3 Remote control.

Remotely controlled circuit breakers must have local manual means of operation.

[CGD 81–030, 53 FR 17847, May 18, 1988]

Subpart 111.55—Switches

§ 111.55–1 General.

(a) Each switch must meet Article 404 of NFPA NEC 2002 (incorporated by reference; see 46 CFR 110.10–1).

(b) Each switch that is in the weather must be in a watertight enclosure and be externally operable.

[CGD 74–125A, 47 FR 15236, Apr. 8, 1982, as amended by USCG–2003–16630, 73 FR 65198, Oct. 31, 2008]

§ 111.55–3 Circuit connections.

The load side of each circuit must be connected to the fuse end of a fused-